

DRAFT PRELIMINARY VIEW

2000 World Radiocommunication
Conference Preparation

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ISSUE:

Verification of PFD Limits in Art. 21 as to whether they adequately protect terrestrial services from FSS networks in the bands 37-40 GHz. (Resolution 133)

BACKGROUND:

RR 2581 (S21.0) specifies that the PFD limits between 31.0 GHz and 40.5 GHz shall be as specified in RR 2578. This regulation indicates that the PFD limits shall be:

-115 dB (W/m²) in any 1 MHz band for angles of arrival between 0 and 5 degrees above the horizontal plane,

-115 + 0.5 (D-5) dB (W/m²) in any 1 MHz band for angles of arrival (in degrees) between 5 and 25 degrees above the horizontal plane,

-105 dB (W/m²) in any 1 MHz band for angles of arrival between 25 and 90 degrees above the horizontal plane.

The issue of adequacy of PFD limits is being addressed through the performance of necessary studies in WP 4/9-S.

PRELIMINARY VIEW:

The U.S. Preliminary View is based on the status of the WP 4/9-S studies.

Based on preliminary CPM information from technical studies in ITU-R WP 4/9-S (TEMP/53), the current view is that the ITU power flux density limits of -115/-105 dB(W/m²per MHz) currently specified in the band 37.5-40.5 GHz are adequate to protect the fixed service. However, the Chairman's Report for WP 4/9-S indicates that prior to concluding on the acceptability of the pfd limits at the next WP 4-9S meeting, additional sharing studies should consider, for example:

- ❑ Other FS point-to-point systems (including systems using high modulation schemes, e.g., 256 QAM), point-to-multipoint systems and FSS systems;
- ❑ The suitability of pfd levels at high FS elevation angles;
- ❑ The propagation information contained in draft new Recommendation [4-9S/AD] (see Document 4-9S/TEMP/45(Rev.1));
- ❑ The effect of aggregate interference from multiple FSS systems.